

### **REMARKS/DISCUSSION OF ISSUES**

By this Amendment, Applicants cancel claims 4, 5, 7 and 12-15 without disclaimer of the underlying subject matter or prejudice against future prosecution. Applicants also amend claims 3, 6, 8-11 and 16, and add new claims 17-21. Accordingly, claims 3, 6, 8-11 and 16-21 are pending in the application.

Reexamination and reconsideration are respectfully requested in view of the following remarks.

### **NEW CLAIMS 17-21**

#### **Claim 17**

Among other things, new claim 17 includes a solid object having a dissolvable layer on a surface thereof, the object being disposed on the surface of the substrate at a position different from the defined placement position, and a liquid droplet provided onto the substrate so as to cover the object that is disposed on the substrate, wherein the dissolvable layer is adapted to dissolve in the liquid droplet so that the object floats freely in the liquid droplet.

Applicants respectfully submit that the cited references do not disclose any system including this combination of features.

In particular, the cited art fails to teach or suggest providing a solid object with a dissolvable layer thereon that dissolves in a liquid droplet so that the object floats freely in the liquid droplet.

In the rejection of claim 5, the Office Action states that it would have been obvious to have provided a dissolvable layer on the object because a skilled worker in the art would have selected *"a material on the basis of its suitability for the intended use as a matter of obvious design choice."*

Applicants respectfully traverse this. The Office Action fails to establish anything in the prior art that suggests that there was any "intended use" that involved any need for a dissolvable layer on the object. For example, in the cited references the object is provided within the droplet or fluid slurry onto the surface of the substrate. In contrast, in some embodiments disclosed in the present application, the

solid object is placed on the substrate, and then the droplet is dispensed onto the object. In that case, providing a dissolvable layer on the object facilitates disassociation of the object from the substrate surface so that the object can float freely within the liquid droplet and thereby be transported by the liquid droplet to the defined placement position on the substrate.

So Applicants respectfully submit that no "intended use" has been disclosed in the cited references art would have suggested adding a dissolvable layer to the solid object for such "intended use."

Therefore, Applicants respectfully submit that claim 17 is patentable over the cited art. Accordingly, Applicants respectfully request that claim 17 be allowed.

#### Claims 18-21

Among other things, the methods of claims 18-21 all include rotating a solid object within a liquid droplet to a specific orientation with respect to a substrate on which the liquid droplet is disposed by applying a magnetic field to the liquid droplet.

Smith discloses briefly that a magnetic field may be used to transport objects in a slurry across a substrate surface in a gross sense. However, Applicants respectfully submit that the cited references do not disclose rotating a solid object within a droplet by applying a magnetic field to a droplet.

Therefore, Applicants respectfully submit that claims 18-21 are patentable over the cited art. Accordingly, Applicants respectfully request that claims 18-21 be allowed.

#### CLAIMS 3, 6, 8, 10 and 11

Claims 3, 6, 8, 10 and 11 are all amended to depend from new claim 17 and are all deemed to be patentable over the cited art for at least the reasons set forth above with respect to claim 17, and for the following additional reasons.

#### 35 U.S.C. § 103

The Office Action rejects claims 9 and 16 under 35 U.S.C. § 103 over Newsome et al. U.S. Patent Application Publication 2004/0115344 ("Newsome") in

view of Becker et al. U.S. Patent 6,294,063 ("Becker") and Smith et al. U.S. Patent 6,294,063 ("Smith").

Applicants traverse these rejections for at least the following reasons.

Among other things, the methods of claims 9 and 16 include placing a solid object onto a substrate in a vicinity of a defined placement position for the object, placing a liquid droplet onto the substrate in the vicinity of the placement position of the object, and immersing the object in the droplet on the surface of the substrate such that the object can freely float within the liquid droplet.

Applicants respectfully submit that the cited references do not teach or suggest any method with this combination of features.

For example, Newsome discloses that blocks 40 are suspended in a fluid and then passed over the substrate 30 (see, e.g., paragraph [0079], lines 15-18). Similarly, Smith discloses that the blocks are provided in the slurry onto the substrate (see, e.g., Abstract lines 3-4). Becker is merely cited for showing "*a solid encapsulated in a liquid and is manipulated on a reactions surface.*" Nothing is cited in any of the references that teaches placing a solid object onto a substrate in a vicinity of a defined placement position for the object, placing a liquid droplet onto the substrate in the vicinity of the placement position of the object, and immersing the object in the droplet on the surface of the substrate such that the object can freely float within the liquid droplet.

Therefore, Applicants respectfully submit that claims 9 and 16 are patentable over the cited art. Accordingly, Applicants respectfully request that claims 9 and 16 be allowed.

### **CONCLUSION**

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 3, 6, 8-11 and 16-21, and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these

matters.

Respectfully submitted,

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